IN THE CLAIMS:

1-24. (Canceled)

25. (New) A method for treating Alzheimer's disease in a patient comprising subjecting said patient to a therapeutically effective amount of an agent which is capable of crossing the blood brain barrier, wherein said agent modulates the interaction within the central nervous system between a divalent or trivalent cation and/or heparin with amyloid precursor protein (APP) of said patient.

26. (New) The method according to claim 25, wherein the cation is a divalent cation.

27. (New) The method according to claim 26, wherein said divalent cation is zinc.

28. (New) The method according to claim 25, wherein a therapeutically effective amount of a zinc-binding agent is administered to said patient.

29. (New) The method according to claim 28, wherein said zinc-binding agent is selected from sodium citrate, 1,2-diethyl-3-hydroxypyridin-4-one, and 1-hydroxyethyl-3-hydroxy-2-methylpyridin-4-one.

30. (New) The method according to claim 28, wherein said zinc-binding agent is orally administered to said patient.

31. (New) A method for altering protease-mediated digestion of amyloid precursor protein (APP) in a patient with Alzheimer's disease, comprising the step of administering to said patient to an effective amount of an agent which is capable of crossing the blood brain barrier, wherein said agent modulates the interaction within the central nervous system between a divalent or trivalent cation and/or heparin with amyloid precursor protein (APP) of said patent.

32. (New) The method according to claim 31, wherein the cation is a divalent cation.

33. (New) The method according to claim 32, wherein said divalent cation is zinc.

34. (New) The method according to claim 31, wherein said agent is a zinc-binding agent.

35. (New) The method according to claim 34, wherein said zinc-binding agent is selected from sodium citrate, 1,2-diethyl-3-hydroxypyridin-4-one, and 1-hydroxyethyl-3-hydroxy-2-methylpoyridin-4-one.

36. (New) The method according to claim 34, wherein said zinc-binding agent is orally administered to said patient.

37. (New) A method of reducing incorrect protease-mediated processing of amyloid precursor protein (APP) in a patient with Alzheimer's disease comprising the step of administering said patient to an effective amount of an agent which is capable of crossing the blood brain barrier, wherein said agent modulates the interaction within the central nervous system between a divalent or trivalent cation and/or heparin with amyloid precursor protein (APP) of said patient.

38. (New) The method according to claim 37, wherein said cation is a divalent cation.

39. (New) The method according to claim 38, wherein said divalent cation is zinc.

40. (New) The method according to claim 37, wherein said agent is zinc-binding agent.

41. (New) The method according to claim 40, wherein said zinc-binding agent is selected from sodium citrate, 1,2-diethyl-3-hydroxypyridin-4-one, and 1-hydroxyethyl-3-hydroxy-2-methylpyridin-4-one.

42. (New) The method according to claim 41, wherein said zinc-binding agent is orally administered to said patient.